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Refer to: L2010355004 -- Winnebago County  
Beloit Corporation -- Rockton  
Superfund/Technical Reports

May 31, 1991

Mr. Kevin J. Domack, Project Manager  
Warzyn Engineering, Inc.  
One Science Court  
Post Office Box 5385  
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EPA Region 5 Records Ctr.



255226

Dear Kevin:

The Illinois Environmental Protection Agency (IEPA) is in receipt of the Site Evaluation Report for the Beloit Corporation Site. Pursuant to the Statement of Work, IEPA ~~was~~ to "provide guidance and comments to the best extent possible". This report, the SER, was to have been submitted 10 business days after entry of the Consent Decree for review. IEPA has provided an early review of this document in good faith so that the preparation of the work plan can be expedited.

The purpose of the SER is to provide a review of data gaps evident from past data. Although elements of this review may be considered in the work plan, IEPA is not in the position to approve the SER since approval of the document is, in effect, an approval of the past investigations. Our review of the past work Warzyn has performed under contract with Beloit Corporation indicated that most of the data is not usable for the purposes of a Remedial Investigation/Feasibility Study (RI/FS) to be performed under this Consent Decree and Statement of Work. Our reasons are as follows:

1. Quality Assurance/Quality Control (QA/QC) procedures used in these past investigations are not consistent with current procedures used by IEPA and the United States Environmental Protection Agency (USEPA).

*retains of the monitoring wells*  
2. ~~Representatives from both IEPA and USEPA were not present~~ <sup>B</sup> during construction activities to independently verify if Warzyn had performed all work consistent with current well installation procedures. *defined rev. cost to construction*

2X. Many wells which were inspected on April 25, 1991 were found to be unlocked. In addition, these wells were also missing well caps. Given the human activity across the site (e.g. motorbike trails, etc...) it is likely that at least these wells were tampered with.

In reference to the usability of Warzyn monitoring wells, it will

*These problems exist in installed substance*  
be necessary to further evaluate the as-built installation procedures. Monitoring wells MW3, MW4, and MW5 cannot be used during the RI for chemical analyses because of poor integrity. Wells and piezometers installed with PVC material will not be used for organic analysis. PVC has been proven to cause interference in (VOC) sampling.

*volatile organic compound*

Specific comments on the SER are as follows:

1. Section 1.1, first paragraph - First sentence, strike "~~and~~<sup>an</sup> Administrative Order of Consent (AOC) issued by the ~~United States~~<sup>U.S.</sup> Environmental Protection Agency (U.S.EPA) Region V", and insert "a Consent Decree initiated by the State of Illinois". In the second paragraph, begin with "In response to citizen complaints, the..."

2. Section 1.2 - Please replace first function with "To describe the existing condition at the facility and provide a basis for the work plan approach.". In the second function, strike "Focused Feasibility Study (FFS); and" and include "work plan.". In the section on information sources (second to last paragraph on page 2) also include a reference to NOAA for your climate conditions section.

3. Section 2.1.2 - Delete "by the IEPA" and include "in the Consent Decree". At the end of the sentence, include, "and two residences at 900 and 903 North Prairie Road.". As far as the site boundaries are concerned, the SER references the southern boundary by a Beloit Corporation access road. This road is actually a city access to the water tower.

4. Section 2.1.3 - In the second paragraph, a statement that hazardous wastes generated on the Beloit Corporation property "are stored in a secure area for less than 90 days" should be included. Structures identified in the next paragraph should <sup>also</sup> include should mention the two residences near the Rock River and C&B Excavating (1314 Watts Ave.). ~~In the seventh paragraph, please include chloroform in the list of VOCs detected.~~

2.1  
5. Section 2.1.3 (cont'd); Page 6, first paragraph - The IEPA report (March, 1988) also referenced 17.7ppb of di-n-octyl phthalate at W2 in November of 1985. This should be referenced at the end of this paragraph, as well as in Table 5. At the end of the second last sentence in paragraph 3, after "(Appendix D)", include, "most notably xylenes (120,000ppm), toluene (45,000ppm), ethylbenzene (30,000ppm) and carbon tetrachloride (130ppm)". Substitute "It is unlikely that this spillage could have significantly contributed to contamination in the Blackhawk Acres subdivision." for the last sentence.

6. Section 2.1.3 (cont'd); last paragraph on page 6 and first paragraph on page 7 - During the IEPA investigation, eight monitoring wells and three piezometers were installed. In addition, 55 private wells were sampled from May 1986 to July 1987, 16 of which had detectable concentration of VOCs. Monitoring well

G104, which was sampled twice (also in March, 1987) also had significant VOC levels. In reference to what had been concluded from this study, IEPA believed that a location on the Beloit Corporation property was the most probable source of contamination in the neighborhood. Please note all these changes.

*Section 2.2.1 (cont'd):*

7. *Page 8X*, first paragraph - Also include that aliphatic hydrocarbons at concentrations of 270ppb were found.

*Section 2.2; This Summary*

8. *Page 10* - should note that the title of the final IEPA investigation was "An Investigation on Volatile Organic Chemical Contamination in Groundwater near Rockton, Illinois". It was also published in March of 1988.

*Section 2.4.1:*

9. *Page 16X*, second paragraph - It should be noted that G103D was a monitoring well, not a boring. In the second sentence, strike "their boring" and substitute "during construction of monitoring well G103D". Also, change "Boring" to "Monitoring well" in the last sentence and include "because of a lack of cohesion in the overlying sand and gravel" after "drill cuttings". Split barrel soil sampling was evidently possible at W18 because of greater cohesion in subsurface materials.

10. Section 2.4.2; first paragraph - All statements in the SER should not be presented as conclusions. Second last sentence, insert "Existing" before "Water level data..." and substitute "have occurred" for "do occur". In the next sentence, insert "may be" in place of "is" after "indicates that winter..." also, near the end of the sentence, insert "possibly" before "dominated by". The following sentence should include "appear to" before "change". Please indicate in the next sentence that observations on groundwater flow directions are historical. At the beginning of the next sentence, include "Existing data indicates that...". The following sentence should note that flow beneath the plant "appears to be" toward the Rock River. Finally, after "fibrous sludge spreading area" (last sentence), substitute "appears to be" for "is".

*(PCE)*

11. Section 2.4.3; first paragraph - The first sentence should include tetrachloroethene in the list of VOCs detected. In the next paragraph, there are many problems with the conclusions that have been drawn. While it is evident that source area(s) are yet to be identified, it cannot be ruled out that the fiber spreading area is a possible source for both the W3, / W5 cluster for the neighborhood. Limited sampling of the fibrous sludge stockpiles has indicated rather high levels of chloroform (354ug/kg) and trans 1,2-DCE (363ug/kg). The fact that these two compounds in high concentrations could have caused high detection limits for the other compounds is likely. Also, the presence of t1,2-DCE in the sludge indicates that the types of compounds responsible for contamination in the neighborhood could have been used at the R&D facility and altered to t1,2-DCE in the treatment process. In the last sentence of this paragraph, the conclusion that the neighborhood is

*spell*

*trans*

*spell (trans 1,2-DCE)*

*spell (trans 1,2-DCE)*

downgradient of the fiber spreading area is questionable; especially during high river stages, groundwater flow could have a strong easterly component. Data from W18, which is certainly not downgradient from 910 Watts has shown 92.3ppb of (TCE); W12 sampled only once showed a detection of 1,1,1-TCA and G103D has shown contamination also.

spell (1,1,1-TCA)

12. Section 2.4.3 (cont'd); second paragraph - The first sentence states that 1,1,1-TCA concentrations at W12 on 6-22-87 was 18.8ug/l. This should be 12.6ug/l (see Table 5). No VOCs found at W2 is incorrect; if 142ppb of methylene chloride (Table 5) is a lab contaminant, it should be explained. Also, recent testing by IEPA on 6-22-90 has shown VOCs present at G103D (G103S was not sampled then). This should be mentioned in this sentence. The last sentence in this paragraph should not rule out an area on the Beloit property near the train tracks as being a possible source of contamination in the neighborhood.

on the fiber spreading area

13. Section 2.4.5.1.2; fifth paragraph - In the last sentence, please explain what processes methylene chloride were used in during past operations at Beloit. In the next paragraph, note that W1 also had MCL violations.

Section 2.4.5.1.2 (cont'd);

14. Page 24, third paragraph - Include results of IEPA sampling at G103D event carried out on 6-22-90 (see Table 5).

Section 2.4.5.1.2 (cont'd);

15. Page 26, last paragraph - In the sentence that describes low VOC concentrations in SP3, plume boundaries cannot be delineated from VOC data taken from these standpipes. It has been proven that PVC interferes with VOC concentrations.

Section 2.4.5.1.2 (cont'd);

16. Page 28, second paragraph - Considering what is known at this point, it would be extremely difficult to prove that contamination has not migrated off of Beloit property based on the fractions of certain compounds found in the sampling. Groundwater velocities are high and the medium in which it travels in has a rather high porosity, therefore a wide range of degradation compounds can be expected. This paragraph should also include a discussion of the layering effect of these compounds. The last paragraph on this page should note earlier comments on groundwater flow directions as well as the above comments.

17. Section 2.4.5.2 - In the first paragraph at the end of the first sentence, replace "June 1987" with "July 1987". In the subsequent paragraph, please note in Table 5 and in our studies that in addition to the compounds listed, PCE, t1,2-DCE, TCE, chloroform, chlorodibromomethane and benzene were also detected in private wells (1,1,2,2-PCE was not). 16 wells in the entire Watts neighborhood showed impacts. Also, violations of MCLs for PCE, t1,2-DCE and 1,1,1-TCA were noted in these investigations. In the last paragraph (first sentence), please note that 1,1-DCE, 1,1-DCA and 1,2-DCE were also detected in Beloit wells. Change next sentence also.

trans

Area Survey

Blackhawk

Section 2.4.5.2 (10-A-2)

18. Page 30, second paragraph - Include a discussion on 1314 Watts. On page 31, please note that on 5-8-84 and 9-18-84, IEPA reported 23ppb and 21ppb (respectively) of 1,1-DCE (see Table 5). Also note that MCL violations of TCE and 1,2-DCE were noted for 1314 Watts (Table 5). IDPH

19. In Table (2), delete references to 1,2-DCA and ethylbenzene. Include chlorodibromomethane, bromoform and benzene. The date "7-16-86" at the top of the page should be changed to "May/June 1986". Also, this analysis was performed by the IEPA lab. In the last IEPA sampling event, please change "May/June 1987" to "May/July 1987". On page 2, note that 916 Blackhawk was not sampled on 9-18-86 (see also page 7, 407 Central, May/July 1987. Page 8 should indicate 407 Dingman as being sampled between May/July 1987 (see also page 19, 1306/1308 Watts, May/July 1987). On page 20, the concentration of 2ppb was detected for 1,1-DCA, not \_\_\_\_\_.

20. On the sampling locations map, the well cluster at G103S has been improperly identified. From east to west, please note that these should be W18, G103D, G103S.

Should you have any questions or concerns about this material, please do not hesitate to call. I suggest a meeting before discussions of the work plan begin.

Sincerely,

Paul E. Takacs, Project Manager  
Federal Sites Management Unit  
Remedial Project Management Section  
Division of Land Pollution Control

cc: Wayde Hartwick, USEPA  
Howard Chinn, IAGO  
Division File